

No.

200100123

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Sakata Seed Corporation

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED DISTINCT VARIETY OF SEXUALLY REPRODUCED, OR TUBER PROPAGATED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

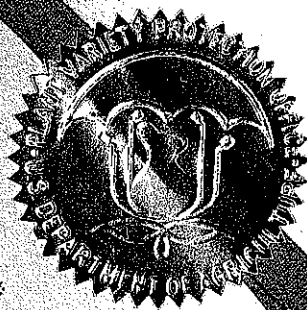
NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF TWENTY YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT; OR CONDITIONING IT FOR PROPAGATION, OR STOCKING IT FOR ANY OF THE ABOVE PURPOSE, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. (84 U.S.C. 2621-2622, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

VINCA

'Victory Cranberry'

In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this fifteenth day of December, in the year two thousand and three.

Attest:



Mal Hermelung
Acting Commissioner
Plant Variety Protection Office
Agricultural Marketing Service

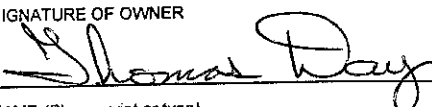
Secretary of Agriculture

U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
SCIENCE AND TECHNOLOGY - PLANT VARIETY PROTECTION OFFICE

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE
(Instructions and information collection burden statement on reverse)

The following statements are made in accordance with the Privacy Act of 1974 (5 U.S.C. 552a) and the Paperwork Reduction Act (PRA) of 1995.

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). Information is held confidential until certificate is issued (7 U.S.C. 2426).

1. NAME OF OWNER Sakata Seed Corporation		2. TEMPORARY DESIGNATION OR EXPERIMENTAL NAME Kakegawa EP6		3. VARIETY NAME Victory Cranberry Kakegawa EP6	
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP Code, and Country) 2-7-1 Nakamachidai Tsuzuki-Ku, Yokohama Japan 24		5. TELEPHONE (include area code) (408) 778-7758		FOR OFFICIAL USE ONLY	
		6. FAX (include area code) (408) 779-1978		PVPO NUMBER 200100123	
7. IF THE OWNER NAMED IS NOT A "PERSON". GIVE FORM OF ORGANIZATION (corporation, partnership, association, etc.) corporation		8. IF INCORPORATED, GIVE STATE OF INCORPORATION Yokohama, Japan		FILING DATE 3/8/01	
10. NAME AND ADDRESS OF OWNER REPRESENTATIVE(S) TO SERVE IN THIS APPLICATION. (First person listed will receive all papers) Thomas Day or Gary Whiteaker Sakata Seed America, Inc. 18095 Serene Drive Morgan Hill, California 95037 USA				FILING AND EXAMINATION FEES: \$ 2705.00 DATE 12/26/00 CERTIFICATION FEE: \$ 432.00 DATE 10/31/03	
11. TELEPHONE (include area code) (408) 778-7758		12. FAX (include area code) (408) 779-1978		13. E-MAIL tday@sakata.com	
				14. CROP KIND (Common Name) vinca or Madagascar perwinkle	
18. CHECK APPROPRIATE BOX FOR EACH ATTACHMENT SUBMITTED (Follow instructions on reverse) a. <input checked="" type="checkbox"/> Exhibit A. Origin and Breeding History of the Variety b. <input checked="" type="checkbox"/> Exhibit B. Statement of Distinctness c. <input checked="" type="checkbox"/> Exhibit C. Objective Description of Variety d. <input checked="" type="checkbox"/> Exhibit D. Additional Description of the Variety (Optional) e. <input checked="" type="checkbox"/> Exhibit E. Statement of the Basis of the Owner's Ownership f. <input checked="" type="checkbox"/> Voucher Sample (2,500 viable untreated seeds or, for tuber propagated varieties, verification that tissue culture will be deposited and maintained in an approved public repository) g. <input checked="" type="checkbox"/> Filing and Examination Fee (\$2,450), made payable to "Treasurer of the United States" (Mail to the Plant Variety Protection Office)			19. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE SOLD AS A CLASS OF CERTIFIED SEED? See Section 83(a) of the Plant Variety Protection Act <input type="checkbox"/> YES (if "yes", answer items 20 and 21 below) <input checked="" type="checkbox"/> NO (if "no," go to item 22)		
			20. DOES THE OWNER SPECIFY THAT SEED OF THIS VARIETY BE LIMITED AS TO NUMBER OF CLASSES? IF YES, WHICH CLASSES? <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		
			21. DOES THE OWNER SPECIFY THAT THE CLASSES BE LIMITED AS TO NUMBER OF GENERATIONS? IF YES, SPECIFY THE NUMBER 1, 2, 3, etc. <input type="checkbox"/> FOUNDATION <input type="checkbox"/> REGISTERED <input type="checkbox"/> CERTIFIED		
			- (If additional explanation is necessary, please use the space indicated on the reverse.)		
22. HAS THE VARIETY (INCLUDING ANY HARVESTED MATERIAL) OR A HYBRID PRODUCED FROM THIS VARIETY BEEN SOLD, DISPOSED OF, TRANSFERRED, OR USED IN THE U. S. OR OTHER COUNTRIES? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, YOU MUST PROVIDE THE DATE OF FIRST SALE, DISPOSITION, TRANSFER, OR USE FOR EACH COUNTRY AND THE CIRCUMSTANCES. (Please use space indicated on reverse.)			23. IS THE VARIETY OR ANY COMPONENT OF THE VARIETY PROTECTED BY INTELLECTUAL PROPERTY RIGHT (PLANT BREEDER'S RIGHT OR PATENT)? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO IF YES, GIVE COUNTRY, DATE OF FILING OR ISSUANCE AND ASSIGNED REFERENCE NUMBER. (Please use space indicated on reverse.)		
24. The owners declare that a viable sample of basic seed of the variety will be furnished with application and will be replenished upon request in accordance with such regulations as may be applicable, or for a tuber propagated variety a tissue culture will be deposited in a public repository and maintained for the duration of the certificate. The undersigned owner(s) is(are) the owner of this sexually reproduced or tuber propagated plant variety, and believe(s) that the variety is new, distinct, uniform, and stable as required in Section 42. and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act. Owner(s) is(are) informed that false representation herein can jeopardize protection and result in penalties.					
SIGNATURE OF OWNER 			SIGNATURE OF OWNER		
NAME (Please print or type) Thomas Day			NAME (Please print or type)		
CAPACITY OR TITLE QC and IPR Manager		DATE 12/21/00		CAPACITY OR TITLE	
				DATE	

GENERAL: To be effectively filed with the Plant Variety Protection Office (PVPO), ALL of the following items must be received in the PVPO: (1) Completed application form signed by the owner; (2) completed exhibits A, B, C, E; (3) for a seed reproduced variety at least 2,500 viable untreated seeds, for a hybrid variety at least 2,500 untreated seeds of each line necessary to reproduce the variety, or for tuber reproduced varieties verification that a viable (in the sense that it will reproduce an entire plant) tissue culture will be deposited and maintained in an approved public repository; (4) check drawn on a U.S. bank for \$2,450 (\$300 filing fee and \$2,150 examination fee), payable to "Treasurer of the United States" (See Section 97.6 of the Regulations and Rules of Practice.) Partial applications will be held in the PVPO for not more than 90 days, then returned to the applicant as unfilled. Mail application and other requirements to Plant Variety Protection Office, AMS, USDA, Room 500, NAL Building, 10301 Baltimore Avenue, Beltsville, MD 20705-2351. Retain one copy for your files. All items on the face of the application are self explanatory unless noted below. Corrections on the application form and exhibits must be initialed and dated. DO NOT use masking materials to make corrections. If a certificate is allowed, you will be requested to send a check payable to "Treasurer of the United States" in the amount of \$300 for issuance of the certificate. Certificates will be issued to owner, not licensee or agent.

Plant Variety Protection Office

Telephone: (301) 504-5518

FAX: (301) 504-5291

Homepage: <http://www.ams.usda.gov/science/pvp.htm>

200100123

ITEM

- 18a. Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) evidence of uniformity and stability; and (4) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified
- 18b. Give a summary of the variety's distinctness. Clearly state how this application variety may be distinguished from all other varieties in the same crop. If the new variety is most similar to one variety or a group of related varieties:
- (1) identify these varieties and state all differences objectively;
 - (2) attach statistical data for characters expressed numerically and demonstrate that these are clear differences; and
 - (3) submit, if helpful, seed and plant specimens or photographs (prints) of seed and plant comparisons which clearly indicate distinctness.
- 18c. Exhibit C forms are available from the PVPO Office for most crops; specify crop kind. Fill in Exhibit C (Objective Description of Variety) form as completely as possible to describe your variety.
- 18d. Optional additional characteristics and/or photographs. Describe any additional characteristics that cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the characteristics that are difficult to describe, such as plant habit, plant color, disease resistance, etc.
- 18e. Section 52(5) of the Act requires applicants to furnish a statement of the basis of the applicant's ownership. An Exhibit E form is available from the PVPO.
19. If "Yes" is specified (seed of this variety be sold by variety name only, as a class of certified seed), the applicant MAY NOT reverse this affirmative decision after the variety has been sold and so labeled, the decision published, or the certificate issued. However, if "No" has been specified, the applicant may change the choice. (See Regulations and Rules of Practice, Section 97.103).
21. See Section 83 of the Act for the Contents and Term of Plant Variety Protection.
22. See Sections 41, 42, and 43 of the Act and Section 97.5 of the regulations for eligibility requirements.
23. See Section 5.5 of the Act for instructions on claiming the benefit of an earlier filing date.

21. CONTINUED FROM FRONT (Please provide a statement as to the limitation and sequence of generations that may be certified.)

22. CONTINUED FROM FRONT (Please provide the date of first sale, disposition, transfer, or use for each country and the circumstances, if the variety (including any harvested material) or a hybrid produced from this variety has been sold, disposed of, transferred, or used in the U.S. or other countries.)

Japan Feb. 1999 Europe May 2000

23. CONTINUED FROM FRONT (Please give the country, date of filing or issuance, and assigned reference number, if the variety or any component of the variety is protected by intellectual property right (Plant Breeder's Right or Patent).)

Japan January 27, 2000 Appl. # 12314

NOTES: It is the responsibility of the applicant/owner to keep the PVPO informed of any changes of address or change of ownership or assignment or owner's representative during the life of the application/certificate. There is no charge for filing a change of address. The fee for filing a change of ownership or assignment or any modification of owner's name is specified in Section 97.175 of the regulations. (See Section 101 of the Act, and Sections 97.130, 97.131, 97.175(h) of the Regulations and Rules of Practice.)

To avoid conflict with other variety names in use, the applicant must check the variety names proposed by contacting: Seed Branch, AMS, USDA, Room 213, Building 306, Beltsville Agricultural Research Center--East, Beltsville, MD 20705. Telephone: (301) 504-8089.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this collection of information is (0581-0055). The time required to complete this information collection is estimated to average 1.4 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

The U.S. Department of Agriculture (USDA) prohibits discrimination in all its programs and activities on the basis of race, color, national origin, gender, religion, age, disability, political beliefs, sexual orientation, and marital or family status. (Not all prohibited bases apply to all programs.) Persons with disabilities who require alternative means for communication of program information (Braille, large print, audiotape, etc.) should contact the USDA's TARGET Center at 202-720-2600 (voice and TDD). To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, DC 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

S&T-470 (2-99) designed by the Plant Variety Protection Office with WordPerfect 6.0a. Replaces STD-470 (6-98) which is obsolete.

Sakata Seed America
Vinca 'Victory Cranberry'
PVP Application Number: 200100123

Exhibit A, Breeding History
Revised: August 8, 2002 (THD)

In 1994 the initial cross was made between two Vinca breeding lines. Line 6-1A-2C-1 possessed two negative traits, small flowers and limp petals, however, it also possessed good branching and round, overlapping petals. Line 4985 possessed larger flowers, however, it also possessed a tall habit with little branching. Both lines were selections of off-type plants from the variety 'Little Linda' that were self-pollinated until true breeding. In 1994 F₁ and F₂ seed were produced and selections were made from the F₂ generation for short plants with branching habit and large-petaled flowers. The selection 2-45B possessed an apricot petal color, round petals, large flowers and a compact habit with good branching.

In 1995 2-45B was crossed to the variety 'Pacifica Red'. F₁ and F₂ generation seed from this cross were produced in 1995. In 1996 the F₂ selection 4-28 was made and self-pollinated seed was made. 4-28 possessed a deep rose (reddish pink) flower petal color. Self-pollination and single plant selection for compact habit and branching, large-petaled, sturdy flowers and attractive petal color continued until 1998 when an F₆ generation plant, 4-28AA-9D, was selected as 'Kakegawa EP6'.

'Kakegawa EP6' was reproduced and grown out to evaluate uniformity again at the F₇ generation. 'Victory Cranberry' was uniform and stable for two seed generations. There are no variant or off-type plants inherent in the variety.

Sakata Seed America
 Vinca 'Victory Cranberry'
 PVP Application Number: 200100123

Exhibit B, Distinctness Statement
 Revised: August 8, 2002 (THD)

Based on overall morphology, 'Victory Cranberry' is most similar to 'Pacifica Red'.

'Victory Cranberry' most clearly differs from 'Pacifica Red' in the following traits:

Trait	'Victory Cranberry'	'Pacifica Red'	Evidence
Flower petal color	RHS 61A	RHS 58B	Photos attached to Exhibit C
Flower orifice color	Yellow	Red	Photos attached to Exhibit C
Flower eye color	White	No eye	Photos attached to Exhibit C
Leaf length	82 mm	90 mm	Statistical data below
Seed coat color	Black	Brown	

Leaf Length Data Analysis

N= 20 plants per variety, one fully expended leaf per plant

Variety	Mean	Std. Dev.	t value	Probability
Victory Cranberry	82	3.10	7.91	7.4 E-10
Pacifica Red	90	3.44		

United States Department of Agriculture, Agricultural Marketing Service
Science and Technology Division, Plant Variety Protection Office
National Agricultural Library Building, Room 500
Beltsville MD 20705OBJECTIVE DESCRIPTION OF VARIETY
VINCA (*Catharanthus* spp.)

Name of Applicant(s) Sakata Seed Corporation	Temporary Designation <u>Kakegawa EP6</u>	Variety Name <u>Victory Cranberry</u> Kakegawa EP6
Address (Street & No., or R.F.D. No., City, State, Zip Code and Country) 2-7-1 Nakamachidai Tsuzuki-Ku, Yokohama Japan 224		FOR OFFICIAL USE ONLY PVPO Number 200100123

Place the appropriate number that describes the varietal characters typical of this variety in the spaces below. Right justify whole numbers by adding leading zeros if necessary. The variety that you choose for comparison should be the most similar one in terms of background and maturity. The comparison variety used should be grown in field trials with the application variety for 2-3 location/years (environments) in the **region and season of best adaptability**. At least one year of trials should be conducted within the United States of America. In general, measurements of quantitative traits should be taken on 15-25 randomly selected plants or plant parts to obtain averages and statistics that describe a typical field of the variety. Designate test location(s): Salinas, California

1. OVERALL PLANT HABIT (at flowering stage): Data Collection Site <u>Salinas, California</u> <input checked="" type="checkbox"/> Species: 1=roseus 2=Other _____ <input checked="" type="checkbox"/> Ploidy: 1=Haploid 2=Diploid 3=Triploid 4=Tetraploid <input checked="" type="checkbox"/> Life Cycle: 1=Annual 2=Biennial 3=Perennial <input checked="" type="checkbox"/> Growth Habit: 1=Determinate 2=Semi-determinate 3=Indeterminate <input checked="" type="checkbox"/> Growth Form: 1=Upright 2=Semi-prostrate 3=Prostrate <input checked="" type="checkbox"/> Flowering: 1=Very Early 2=Early 3=Mid Season 4=Late 5=Continuous <u>77</u> Days from Planting to First Flowering <u>150</u> Length of Flowering Season in Days <u>14.0</u> cm Plant Height at Maturity <u>16.0</u> cm Plant Width at Maturity <input checked="" type="checkbox"/> Plant Height Class: 1=Extra Dwarf 2=Dwarf 3=Semi-dwarf 4=Tall <input checked="" type="checkbox"/> Plant Width Class: 1=Compact 2=Semi-compact 3=Spreading/Lax	Comparison Variety Name <u>'Pacifica Red'</u> <input checked="" type="checkbox"/> Species <input checked="" type="checkbox"/> Ploidy <input checked="" type="checkbox"/> Life Cycle <input checked="" type="checkbox"/> Growth Habit <input checked="" type="checkbox"/> Growth Form <input checked="" type="checkbox"/> Flowering season <u>77</u> Days to First Flowering <u>150</u> Days - Flowering Season Length <u>13.0</u> cm Plant Height <u>16.0</u> cm Plant Width <input checked="" type="checkbox"/> Plant Height Class <input checked="" type="checkbox"/> Plant Width Class
2. STEM: <input checked="" type="checkbox"/> Profile: 1=Straight 2=Zig-Zag <input checked="" type="checkbox"/> Branching Pattern: 1=Single Stem 2=Few Branches 3=Many Branches <u>14.0</u> cm Stem Length from base of stem to terminal flower <u>0</u> Number of Internodes below First Branch <u>10</u> Number of First Order Branches (from main stem) <input checked="" type="checkbox"/> Stem Anthocyanin: 1=Absent 2=Along Veins only 3=Solid Coloration	<input checked="" type="checkbox"/> Profile <input checked="" type="checkbox"/> Branching Pattern <u>13.0</u> cm Stem Length (total) <u>0</u> Number of Internodes below First Branch <u>10</u> No. of First Order Branches (from main stem) <input checked="" type="checkbox"/> Stem Anthocyanin
Application Variety Data	Comparison Variety Data

 5065
8/12/02

5

545
8/12/02

Victory Cranberry

200100123

Application Variety Data

~~Kakegawa EPG~~

Page 2

Comparison Variety Data

'Pacifica Red'

3. FOLIAGE:

1 Leaf Type: 1=Simple 2=Compound

1 Leaf Margin: 1=Entire 2=Serrate 3=Other

1 Leaf Odor: 1=None 2=Mild 3=Strong

2 Petiole Anthocyanin: 1=Absent 2=Mild 3=Strong

2 Leaf Shape: 1=Lanceolate 2=Elliptic 3=Obovate 4=Ovate

290 mm Leaf Width

820 mm Leaf Length



LEAF DORSAL SIDE:

2 Leaf Color: 1=Light Green 2=Medium Green 3=Dark Green
4=Other (describe)

Color Chart Name RHS

Color Chart Reading 137B

2 Pubescence: 1=Absent 2=Light 3=Heavy

1 Luster: 1=Dull 2=Shiny

LEAF VENTRAL SIDE:

2 Leaf Color: 1=Light Green 2=Medium Green 3=Dark Green
4=Other (describe)

Color Chart Name RHS

Color Chart Reading 144A

2 Pubescence: 1=Absent 2=Light 3=Heavy

1 Luster: 1=Dull 2=Shiny

4. FLOWER:

1 Type: 1=Single 2=Semi-Double 3=Double

1 Form: 1=Flat 2=Cupped 3=Other

1 Shape: 1=Round (petals overlap) 2=Intermediate 3=Star (petals gapped)

1 Flower Odor: 1=None 2=Mild 3=Strong

2 Pedicel Anthocyanin: 1=Absent 2=Faint 3=Strong

25 Number Flowers per Plant

46.5 mm Flower Diameter

3.0 mm Orifice Size (including the opening of the corolla tube)

2.5 mm Ring Width (from outside orifice to edge of color band)

25.0 mm Petal Width (at widest point)

25.0 mm Petal Length (from ring to outer edge)

1 Leaf Type

1 Leaf Margin

1 Leaf Odor

2 Petiole Anthocyanin

2 Leaf Shape

27.5 mm Leaf Width

90.0 mm Leaf Length

LEAF DORSAL SIDE

2 Leaf Color

Color Chart Reading 137B

2 Pubescence

1 Luster

LEAF VENTRAL SIDE

2 Leaf Color

Color Chart Reading 144A

2 Pubescence

1 Luster

1 Type

1 Form

1 Shape

1 Flower Odor

1 Pedicel Anthocyanin

25 Number Flowers per Plant

43.0 mm Flower Diameter

2.0 mm Orifice Size

2.1 mm Ring Width

25.0 mm Petal Width

23.0 mm Petal Length

Application Variety Data

Comparison Variety Data

JMS 8/12/02
JMS 9/23/03

Victory Cranberry

200 100 123

Application Variety Data	<u>'Kakegawa EPG'</u>	Page 3	Comparison Variety Data	<u>'Pacifica Red'</u>
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5. FLOWER COLORS : (Note: Common Color Charts: RHS=Royal Horticultural Society Colour Chart; Munsell=Munsell Book of Color)

	Color Verbal Name	Color Chart Code	Color Chart Name		Color Name	Chart Code	Chart Name
EXAMPLE	Light Blue	106C	RHS				
Petal Color	red/purple	61A	RHS	Petal Color	red purple	58B	RHS
Ring Color	white	155D	RHS	Ring Color	red purple	59B	RHS
Orifice Color	yellow	2A	RHS	Orifice Color	red	46A	RHS
Other Color (describe location or placement) Eye	White	155D	RHS	Other Eye	red purple	58B	RHS

6. SEEDS (Measure mature (dry) seeds): <u>5</u> Seed Set : 1=None 2=Poor 3=Fair 4=Good 5=Excellent <u>4</u> Seed Coat Color: 1=White 2=Tan 3=Brown 4=Black 5=Other _____ <u>1700.0</u> mg Weight per 1000 Seeds	<u>5</u> Seed Set <u>3</u> Seed Coat Color <u>1800.0</u> mg Seed Weight
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7. RESISTANCE: Test as many disease and insect reactions as possible before applying for protection. Tests for disease and insect reactions should include a resistant check and a susceptible check for each disease or insect being tested. When using disease resistance to describe novelty, information on these checks should be included in the novelty statement in support of the novelty claim. Rate the application variety and the comparison variety on a scale of 1 (most susceptible) to 9 (most resistant) for each disease or insect reaction being reported. Give the scientific and common names of each disease/insect for completeness, and the race or strain, if known. (Rate from 1 (most susceptible) to 9 (most resistant)):

Rating	Disease/Insect Name (give race or strain, if known)	Rating	Disease/Insect Name

Application Variety Data	Comparison Variety Data
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8.
va
gi

ing the identity of each
of the verbal descriptors

Kakegawa EPG is labeled
Victory Cranberry in this
photo.

Exhibit D

PVP Appl. No. _____

Vinca Data - First Sowing - Plant Characteristics

Plant. No.	Kakegawa EP6 (cm.)			Pacifica Red (cm.)		
	Plant Height	Flower Diam.	Leaf Width	Plant Height	Flower Diam.	Leaf Width
1	11	4.5	2.4	11	3.8	2.7
2	11	4.8	2.2	11	5.0	2.9
3	12	5.1	2.7	13	4.5	2.1
4	15	4.7	2.9	10	4.5	2.4
5	13	5.1	2.1	13	4.1	2.2
6	14	4.8	3.2	15	4.0	2.2
7	14	4.6	2.5	11	4.3	2.0
8	13	4.5	2.3	11	4.8	2.1
9	15	4.5	2.5	11	4.5	2.8
10	14	4.3	2.8	9	4.3	2.9
11	15	5.0	2.4	11	4.5	2.6
12	15	5.1	2.5	11	4.6	2.6
13	15	3.9	2.7	12	4.1	3.2
14	16	4.4	3.1	13	4.3	2.4
15	12	5.0	3.1	11	5.0	2.3
16	10	5.0	3.3	11	4.3	2.2
17	9	5.1	2.7	11	4.2	2.7
18	13	4.7	2.5	10	4.1	2.2
19	17	4.9	2.2	9	4.3	3.0
20	18	3.7	2.8	10	4.6	2.3
21	13	3.2	3.1	11	4.1	3.0
22	15	4.1	2.7	13	4.3	2.3
23	13	4.4	2.5	12	4.2	3.5
24	14	5.0	2.1	11	4.2	2.4
25	16	4.9	3.0	10	4.3	2.5
26	18	5.0	2.3	11	4.2	2.4
27	14	5.0	3.0	10	4.7	2.8
28	17	4.5	2.5	11	4.8	2.5
29	12	4.5	3.2	12	3.8	2.4
30	10	4.7	3.0	9	3.3	2.5
Count	30	30	30	30	30	30
Average	14	4.6	2.7	11	4.3	2.5
Std. Dev.	2.3104	0.4528	0.3530	1.3322	0.3598	0.3548

H: mean(EP6) = mean (Pacifica)

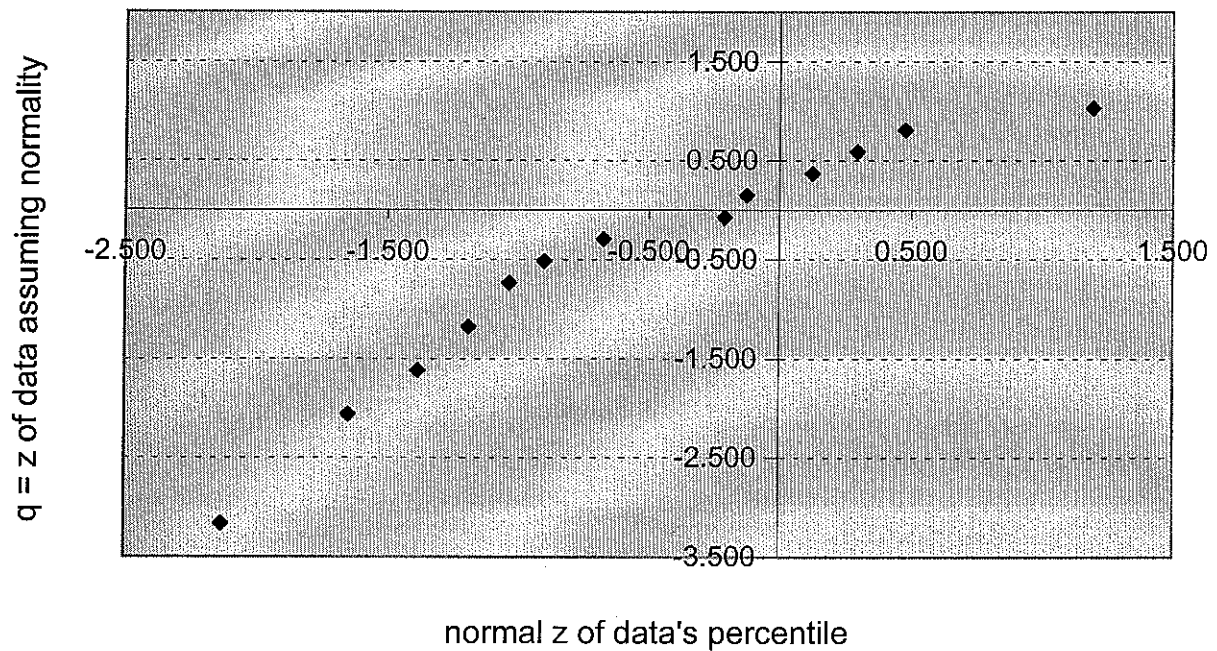
	Plant Height	Flower Diam	Leaf Width
df numerator	0.056210778	0.000124318	6.97001E-05
df denominator	0.00121238	2.25297E-06	1.20176E-06
degrees of freedom	46.364	55.180	57.999
t stat	5.477	2.936	1.532
Prob(T >t)	0.00000	0.00485	0.13100
Excel's Prob	0.00000	0.00484	0.13091

Quantile - Quantile Plot Calculations - First Sowing

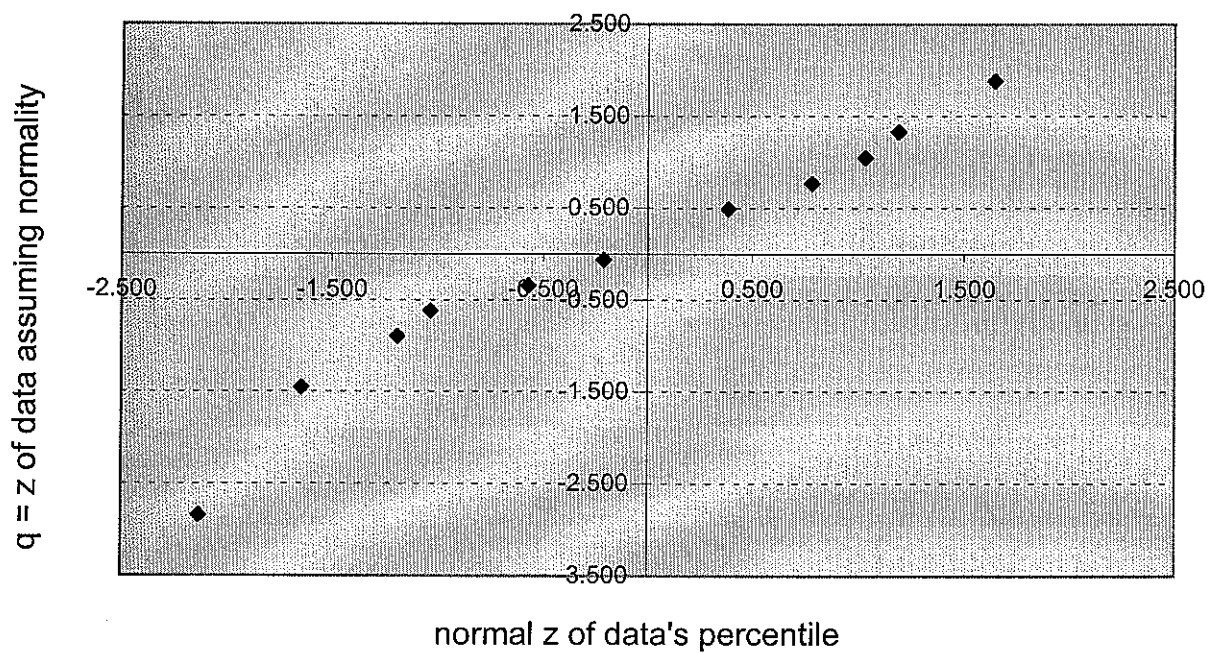
EP6 Flower Diameter					Pacifica Flower Diameter				
Flower Diam.	Rank	percentile	z of p	z of data	Flower Diam.	Rank	percentile	z of p	z of data
3.2	1	0.017	-2.128	-3.165	3.3	1	0.017	-2.128	-2.844
3.7	2	0.050	-1.645	-2.061	3.8	2	0.050	-1.645	-1.455
3.9	3	0.083	-1.383	-1.619	3.8	2	0.050	-1.645	-1.455
4.1	4	0.117	-1.192	-1.178	4.0	4	0.117	-1.192	-0.899
4.3	5	0.150	-1.036	-0.736	4.1	5	0.150	-1.036	-0.621
4.4	6	0.183	-0.903	-0.515	4.1	5	0.150	-1.036	-0.621
4.4	6	0.183	-0.903	-0.515	4.1	5	0.150	-1.036	-0.621
4.5	8	0.250	-0.674	-0.294	4.1	5	0.150	-1.036	-0.621
4.5	8	0.250	-0.674	-0.294	4.2	9	0.283	-0.573	-0.343
4.5	8	0.250	-0.674	-0.294	4.2	9	0.283	-0.573	-0.343
4.5	8	0.250	-0.674	-0.294	4.2	9	0.283	-0.573	-0.343
4.5	8	0.250	-0.674	-0.294	4.2	9	0.283	-0.573	-0.343
4.6	13	0.417	-0.210	-0.074	4.3	13	0.417	-0.210	-0.065
4.7	14	0.450	-0.126	0.147	4.3	13	0.417	-0.210	-0.065
4.7	14	0.450	-0.126	0.147	4.3	13	0.417	-0.210	-0.065
4.7	14	0.450	-0.126	0.147	4.3	13	0.417	-0.210	-0.065
4.8	17	0.550	0.126	0.368	4.3	13	0.417	-0.210	-0.065
4.8	17	0.550	0.126	0.368	4.3	13	0.417	-0.210	-0.065
4.9	19	0.617	0.297	0.589	4.3	13	0.417	-0.210	-0.065
4.9	19	0.617	0.297	0.589	4.5	20	0.650	0.385	0.491
5.0	21	0.683	0.477	0.810	4.5	20	0.650	0.385	0.491
5.0	21	0.683	0.477	0.810	4.5	20	0.650	0.385	0.491
5.0	21	0.683	0.477	0.810	4.5	20	0.650	0.385	0.491
5.0	21	0.683	0.477	0.810	4.6	24	0.783	0.784	0.769
5.0	21	0.683	0.477	0.810	4.6	24	0.783	0.784	0.769
5.0	21	0.683	0.477	0.810	4.7	26	0.850	1.036	1.047
5.1	27	0.883	1.192	1.031	4.8	27	0.883	1.192	1.325
5.1	27	0.883	1.192	1.031	4.8	27	0.883	1.192	1.325
5.1	27	0.883	1.192	1.031	5.0	29	0.950	1.645	1.881
5.1	27	0.883	1.192	1.031	5.0	29	0.950	1.645	1.881
4.6					4.3				
0.4528					0.3598				

First Sowing

Quantile - Quantile Plot of Kakegawa EP6 Flower Diameter



Quantile - Quantile Plot of Pacifica Red Flower Diameter



Vinca Data - Second Sowing - Plant Characteristics

Plant. No.	Kakegawa EP6 (cm.)			Pacifica Red (cm.)		
	Plant Height	Flower Diam.	Leaf Width	Plant Height	Flower Diam.	Leaf Width
1	15	5.1	3.1	14	4.1	2.5
2	15	4.1	3.2	16	4.0	2.9
3	15	4.6	3.1	16	4.7	3.3
4	15	4.5	3.3	18	4.7	3.7
5	16	5.0	2.9	16	4.4	3.1
6	15	4.7	3.1	15	4.2	3.2
7	14	4.8	3.3	15	4.3	2.2
8	11	5.0	3.1	14	4.6	2.8
9	10	4.4	3.3	13	4.4	3.2
10	12	4.9	3.3	12	4.3	2.8
11	14	5.0	3.8	16	4.5	3.1
12	15	4.7	3.6	16	4.1	2.9
13	15	5.1	3.3	16	4.1	2.6
14	15	4.5	3.3	17	4.6	3.4
15	15	5.0	3.3	17	4.6	3.6
16	15	4.1	3.7	12	4.8	2.7
17	15	4.7	3.3	12	4.0	3.2
18	14	4.0	3.1	12	4.2	2.8
19	13	4.9	3.0	16	4.0	2.4
20	15	4.7	3.3	15	4.7	3.1
21	15	5.1	3.0	16	4.5	3.1
22	16	4.6	2.9	13	4.7	2.9
23	16	4.7	3.3	16	3.5	2.6
24	15	5.1	2.8	16	4.3	3.1
25	13	4.1	2.7	15	3.3	3.1
26	13	4.6	2.6	13	4.6	3.0
27	13	5.3	3.3	14	4.5	2.6
28	12	na	3.0	14	4.5	2.4
29	12	na	2.5	15	4.5	3.0
30	11	na	2.9	14	4.5	3.2
Count	30	27	30	30	30	30
Average	14	4.7	3.1	15	4.3	3.0
Std. Dev.	1.6189	0.3516	0.2933	1.6484	0.3480	0.3511

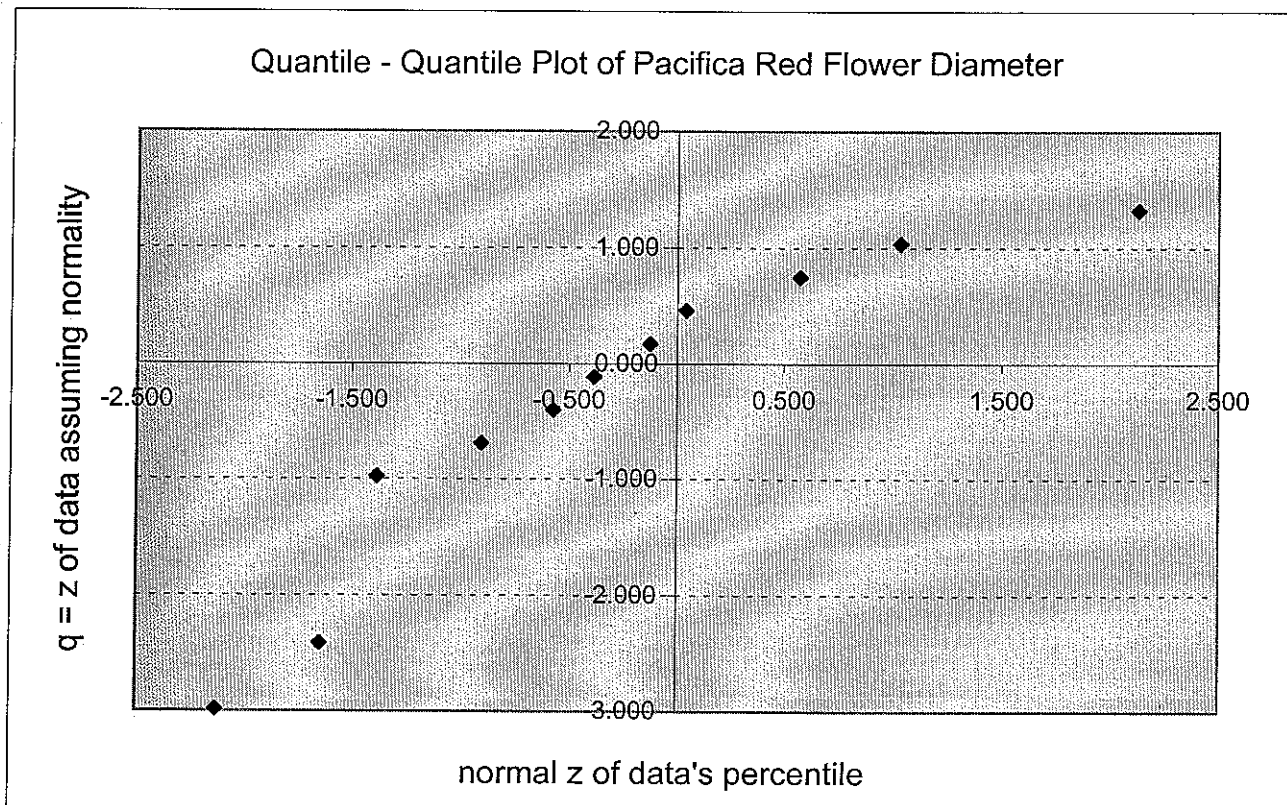
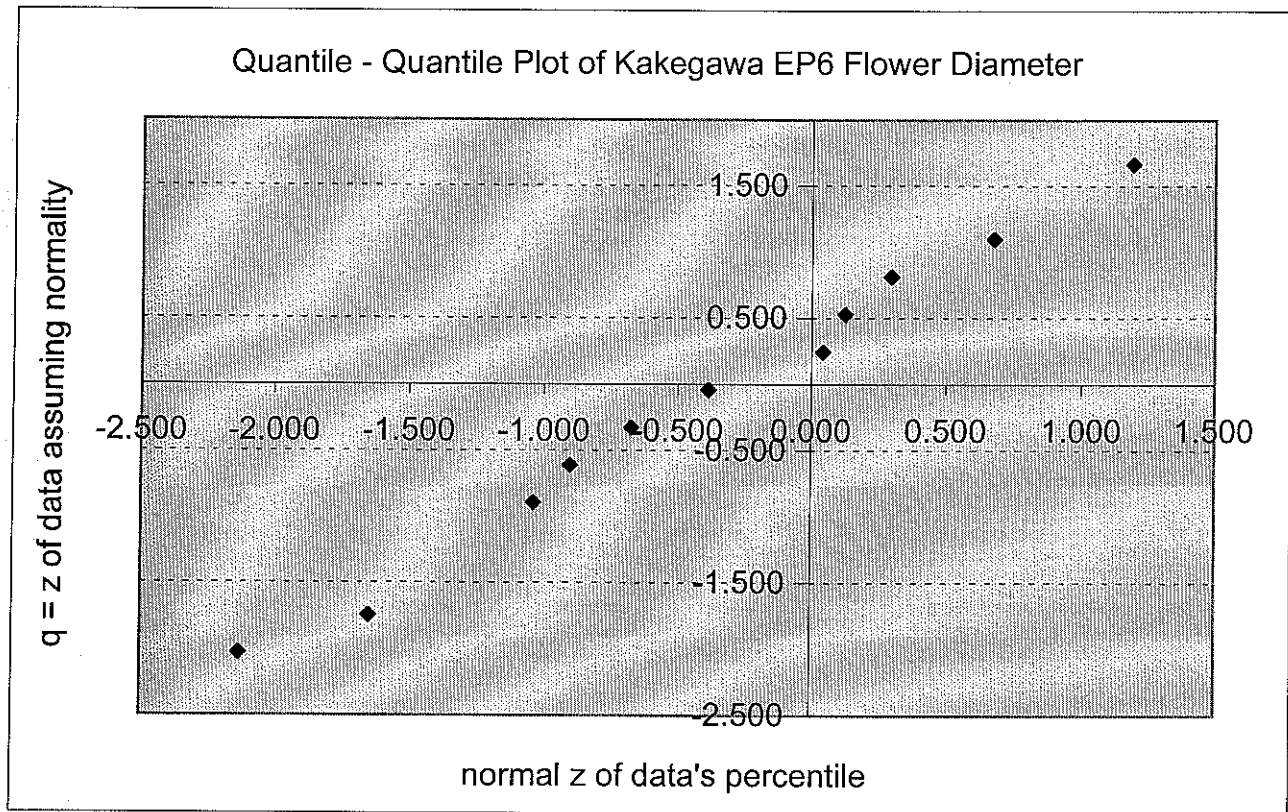
$H: \text{mean}(EP6) = \text{mean}(Pacifica)$

	Plant Height	Flower Diam	Leaf Width
df numerator	0.031659453	7.42223E-05	4.86733E-05
df denominator	0.000546031	1.36816E-06	8.65781E-07
degrees of freedom	57.981	54.250	56.219
t stat	-1.897	4.038	2.355
Prob(T >t)	0.06296	0.00017	0.02208
Excel's Prob	0.06287	0.00017	0.02206

Quantile - Quantile Plot Calculations - Second Sowing

EP6 Flower Diameter					Pacifica Flower Diameter				
Flower Diam.	Rank	percentile	z of p	z of data	Flower Diam.	Rank	percentile	z of p	z of data
4.0	1	0.017	-2.128	-2.033	3.3	1	0.017	-2.128	-2.989
4.1	2	0.050	-1.645	-1.749	3.5	2	0.050	-1.645	-2.414
4.1	2	0.050	-1.645	-1.749	4.0	3	0.083	-1.383	-0.977
4.1	2	0.050	-1.645	-1.749	4.0	3	0.083	-1.383	-0.977
4.4	5	0.150	-1.036	-0.895	4.0	3	0.083	-1.383	-0.977
4.5	6	0.183	-0.903	-0.611	4.1	6	0.183	-0.903	-0.690
4.5	6	0.183	-0.903	-0.611	4.1	6	0.183	-0.903	-0.690
4.6	8	0.250	-0.674	-0.327	4.1	6	0.183	-0.903	-0.690
4.6	8	0.250	-0.674	-0.327	4.2	9	0.283	-0.573	-0.402
4.6	8	0.250	-0.674	-0.327	4.2	9	0.283	-0.573	-0.402
4.7	11	0.350	-0.385	-0.042	4.3	11	0.350	-0.385	-0.115
4.7	11	0.350	-0.385	-0.042	4.3	11	0.350	-0.385	-0.115
4.7	11	0.350	-0.385	-0.042	4.3	11	0.350	-0.385	-0.115
4.7	11	0.350	-0.385	-0.042	4.4	14	0.450	-0.126	0.172
4.7	11	0.350	-0.385	-0.042	4.4	14	0.450	-0.126	0.172
4.8	16	0.517	0.042	0.242	4.5	16	0.517	0.042	0.460
4.9	17	0.550	0.126	0.527	4.5	16	0.517	0.042	0.460
4.9	17	0.550	0.126	0.527	4.5	16	0.517	0.042	0.460
5.0	19	0.617	0.297	0.811	4.5	16	0.517	0.042	0.460
5.0	19	0.617	0.297	0.811	4.5	16	0.517	0.042	0.460
5.0	19	0.617	0.297	0.811	4.5	16	0.517	0.042	0.460
5.0	19	0.617	0.297	0.811	4.6	22	0.717	0.573	0.747
5.1	23	0.750	0.674	1.096	4.6	22	0.717	0.573	0.747
5.1	23	0.750	0.674	1.096	4.6	22	0.717	0.573	0.747
5.1	23	0.750	0.674	1.096	4.6	22	0.717	0.573	0.747
5.1	23	0.750	0.674	1.096	4.7	26	0.850	1.036	1.034
5.3	27	0.883	1.192	1.664	4.7	26	0.850	1.036	1.034
					4.7	26	0.850	1.036	1.034
					4.7	26	0.850	1.036	1.034
					4.8	30	0.983	2.128	1.322
4.7					4.3				
0.3516					0.3480				

Second Sowing



U.S. DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE**EXHIBIT E**
STATEMENT OF THE BASIS OF OWNERSHIP

Application is required in order to determine if a plant variety protection certificate is to be issued (7 U.S.C. 2421). The information is held confidential until the certificate is issued (7 U.S.C. 2426).

1. NAME OF APPLICANT(S) Sakata Seed Corporation	2. TEMPORARY DESIGNATION OR EXPERIMENTAL NUMBER Kakegawa EP6	3. VARIETY NAME Victory Cranberry Kakegawa EP6
4. ADDRESS (Street and No., or R.F.D. No., City, State, and ZIP, and Country) 2-7-1 Nakamachidai Tsuzuki-Ku, Yokohama Japan 224	5. TELEPHONE (Include area code) (408) 778-7758	6. FAX (Include area code) (408) 779-1978
7. UPOV NUMBER 200100123		

8. Does the applicant own all rights to the variety? Mark an "X" in the appropriate block. If no, please explain. ☒ YES ☐ NO9. Is the applicant (individual or company) a U.S. national or a U.S. based company? If no, give name of country. ☐ YES ☒ NO Japan10. Is the applicant the original owner? ☒ YES ☐ NO If no, please answer one of the following:

a. If the original rights to variety were owned by individual(s), is (are) the original owner(s) a U.S. National(s)?

☐ YES ☐ NO If no, give name of country

b. If the original rights to variety were owned by a company(ies), is (are) the original owner(s) a U.S. based company?

☐ YES ☐ NO If no, give name of country

11. Additional explanation on ownership (If needed, use the reverse for extra space):

The breeder of the new variety is an employee of Sakata Seed Corporation. By agreement between the employee and Sakata, all rights to any invention are assigned to the company; therefore, ownership resides with Sakata Seed Corporation.

PLEASE NOTE:

Plant variety protection can only be afforded to the owners (not licensees) who meet the following criteria:

1. If the rights to the variety are owned by the original breeder, that person must be a U.S. national, national of a UPOV member country, or national of a country which affords similar protection to nationals of the U.S. for the same genus and species.
2. If the rights to the variety are owned by the company which employed the original breeder(s), the company must be U.S. based, owned by nationals of a UPOV member country, or owned by nationals of a country which affords similar protection to nationals of the U.S. for the same genus and species.
3. If the applicant is an owner who is not the original owner, both the original owner and the applicant must meet one of the above criteria.

The original breeder/owner may be the individual or company who directed the final breeding. See Section 41(a)(2) of the Plant Variety Protection Act for definitions.

According to the Paperwork Reduction Act of 1995, an agency may not conduct or sponsor, and a person is not required to respond to a collection of information unless it displays a valid OMB control number. The valid OMB control number for this information collection is 0581-0055. The time required to complete this information collection is estimated to average 6 minutes per response, including the time for reviewing the instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information.

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To file a complaint of discrimination, write USDA, Director, Office of Civil Rights, Room 326-W, Whitten Building, 14th and Independence Avenue, SW, Washington, D.C. 20250-9410 or call (202) 720-5964 (voice and TDD). USDA is an equal opportunity provider and employer.

JWS 8/12/02

14